



# California Regional Water Quality Control Board

## San Diego Region



**Terry Tamminen**  
Secretary for  
Environmental  
Protection

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**Arnold Schwarzenegger**  
Governor

March 5, 2004

**CERTIFIED MAIL –RECEIPT REQUESTED**  
7003 1680 0000 7393 6575

Mr. Richard Chase  
c/o Gregory Canyon Ltd.  
991-C-404 Lomas Santa Fe Drive  
Solana Beach, California 92075

In reply refer to:  
**LD:06-0024.02:tamac**

Dear Mr. Chase:

**RE: JOINT TECHNICAL DOCUMENT FOR GREGORY CANYON LANDFILL  
DATED FEBRUARY 2004**

The purpose of this letter is to acknowledge receipt of the Joint Technical Document (JTD) by the California Regional Water Quality Control Board, San Diego Region ("RWQCB") on February 4, 2004. The current JTD supersedes the previous document submitted to the RWQCB on May 3, 2003.

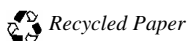
Based upon our review of the current JTD, the RWQCB has determined the current JTD is incomplete. We have the following comments on the current JTD:

1. State Water Resources Control Board (SWRCB) JTD Index

Our comment letter dated July 6, 2003 identified several discrepancies in the JTD Index. Several of the previously noted errors have been corrected, however, we have some additional editorial comments on the current JTD Index.

SWRCB Requirement	SWRCB Citation	JTD Page (Suggested Changes)
Classification and Siting Criteria	20240	Add page B.1-2.
CQA Plan & Requirements	20323 & 20324	Delete reference to section C.4.
Water Quality Protection Standard (Water Standard)	20390	Change reference for Appendix G to include pages 17-23.
COCs	20395(a)	Change reference for Appendix G, pgs. 21-23.
MSW COCs	20395(b)	Change reference for Appendix G, pgs. 21-23.

**California Environmental Protection Agency**



Proposing COCs	20400(a)-(a)(3)	Change reference for Appendix G, pgs. 21-23.
Surface Water Monitoring (general)	20415(c) – (c)(2)(D)	Add Appendix G, page 20.
Unsaturated Zone Monitoring (general)	20415(d) – (d)(4)	Delete all of references except Appendix G, page 21.
Loggings of borings	20415(e)(2) – (e)(2)(C)	Add Appendix G, Attachment 1.
Monitoring sample QA/QC	20415(e)(4)-(e)(4)(D)	Change to read Appendix G, Section 5, pages 6-8 and Attachment 1.
Sampling & analytical methods (perf.std.for)	20415(e)(5)	Change to read, Appendix G, Section 6, pages 8-9 and Attachment 1.
Monitoring data procurement, analysis, and submittal	20415(e)(6) – (e)(15)	Delete references to Section B. Change reference for Appendix G to include pages 14-18.
Detection Monitoring Program	20420	Change reference for Appendix G to include pages 12 – 25.
Standards for Daily and Intermediate (Interim) Cover	20705	Add Appendix F-1.
Erosion control layer	21090(a)(3) – (a)(3)(A)3	Delete reference to page E.1-5.
Grading requirements (performance standards)	21090(b)-(b)(3)	Check reference to E.2 and corresponding page numbers.
SWRCB – JTD	21585	Delete reference to Table 2. Add page numbers A.1-4 to A.1-9 to Table 1.
Waste Discharge Requirements (WDRs)	21720(d-f)	Delete reference to Table 1.
Topographic map	21750(d)(1)	Delete references to Figures 2, 9 and 27A
Hydrogeology	21750(g)-(g)(7)(D)	Change reference for Appendix C to pages 2-1 through 2-19. Where are Tables 12-24 located in the JTD?
Land/Water Use	21750(h)-(h)(5)	Correct referenced page numbers in Appendix G. Delete reference to Attachment 1. Clarify location of Table 12 D, add page D.5-14.
Design Report	21760(a)(3) – (a)(4)	Delete references to Appendices M and N
SWRCB – Closure Funding Requirements	22207(a)	Change reference to page F.1-6
SWRCB- Post-Closure Funding Requirements	22212(a)	Change reference to page F.1-6
SWRCB – Corrective Action	22222	Where is referenced Figure 1-6?

Funding Requirements		
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2. *Jurisdiction on Wetlands Issues*

We understand that Gregory Canyon Ltd. does not intend to apply for a 404 permit. We have forwarded our comments from our July 6, 2003 letter and your response to Mr. Terry Dean of the Army Corps of Engineers for his review. It is important to note that additional requirements associated with 404/401 permit process may be incorporated into tentative waste discharge requirements for Regional Board consideration.

3. *Bottom Liner System Design*

The current design for the bottom liner of the Gregory Canyon Landfill includes an electrical leak location survey as part of a quality assurance program for construction defects. Although this may provide an indication of construction defects in the placement of the bottom liner, the Regional Board remains concerned regarding thickness of the bottom liner vs. the long-term protection of ground water quality of the Pala Hydrologic Subarea.

We have noted that the design for the bottom liner has not been modified, as requested in our letter dated July 6, 2003. The Regional Board suggested that you develop a design that includes additional thickness of the interval between the two geomembranes to make the double composite liner system more resistant to potential construction defects (*i.e.*, rips and tears). During the operational life of a landfill, the protection of groundwater quality primarily depends upon integrity of the liner system. The protection of groundwater quality could be significantly reduced if the integrity of the double composite liner system were compromised during construction.

There are at least two alternatives that could increase the thickness of the interval between the two composite liners, including the use some type of drainage layer or a layer of compacted clay that adds significant thickness to the interval of concern. It is understood that a double composite liner design incorporating a secondary drainage layer could also have drawbacks, so each design involves tradeoffs. Using a secondary drainage layer may add leak detection capability, but it also introduces a potential pathway for migration of gas or leachate. It could also require modeling of the GCL as hydrated (considerably weakened state) when

performing slope stability calculations, unless another FML were added to the design.

In our JTD comment letter dated July 6, 2003, specific comment 5(b) asked whether or not a 80-mil liner was considered in the proposed liner design. The response to this question does not clearly indicate whether or not this will be incorporated into the final design for the liner system for Gregory Canyon Landfill. Please ensure the next JTD submittal contains the final design for the bottom liner.

4. *Proposed Surface Water Monitoring Network*

We have reviewed the aerial photograph depicting the proposed location of surface water sampling location SLRSW-1. There is no scale on this aerial photograph. The location does not line up with the other figures in the JTD (10C, 28A and 30). In addition, the boundaries of the landfill property are also depicted differently in these figures. Please ensure that the next JTD submittal contains consistent property boundaries and surface water sampling locations.

5. *Analysis of Potential for Impairment, 27 CCR 21750(a)*

Page B.5-6 estimates the quantities of leachate generation from the Gregory Canyon Landfill. However, there is no statement regarding the potential for impairment of the ground water basin. Please ensure this information is included in the next JTD submittal.

There were no references in the JTD index for potential impairment of surface water. Please ensure the next JTD index contains a reference and/or an analysis of potential impairment of surface water.

6. *Floodplain analysis, 27 CCR 21750(d)(2)-(d)(2)(C)2*

27 CCR 21750(d)(2) requires the submittal of a FEMA map. Please ensure this is included in the next submittal of the JTD.

7. *Appendix C, pages 2-17 through 2-19*

The JTD recommends spacing the point-of-compliance ground water monitoring wells around 200 to 300 feet apart based on previous cross-hole testing performed in the lower, middle and upper reaches of the Gregory Canyon Landfill. Only the results from the lower reach of Gregory Canyon could be applicable to the

proposed additional compliance monitoring wells. The cross-hole testing for the lower reach indicated a capture radius of 51 feet between wells GMW-1 and GLA-3. In addition, ground water pumping tests between GMW-1, GLA-3 and – 13 indicated a hydraulic communication between these ground water wells of 200 feet.

The proposal for the additional compliance and background monitoring wells included performing pumping tests to demonstrate that the ground water monitoring wells were spaced at an appropriate interval after installation. There was no estimated time schedule for the construction or testing of the proposed additional compliance/background monitoring wells.

As you know, the Regional Board's mission is to protect the beneficial uses of surface waters and ground waters of the state. The ground water monitoring network should be designed to ensure earliest detection of a leak from the landfill.

We insist that the proposed monitoring network (five compliance wells and three background wells, according to Table 2-21) be installed and pumping tests be performed prior to the drafting of waste discharge requirements. It is imperative for the Regional Board to have this information available prior to their consideration of draft waste discharge requirements for this facility. This will assist us in determining whether or not the proposed monitoring network is adequate.

8. *California Environmental Quality Act (CEQA) Compliance*

The cover letter for this JTD indicates that the Notice of Determination will be sent by the Local Enforcement Agency to the State Clearinghouse upon issuance of the draft SWFP and submittal to the California Integrated Waste Management Board for concurrence. As noted in our letter dated August 10, 2001, we will need a copy of the Notice of Determination prior to consideration of tentative waste discharge requirements by the Regional Board.

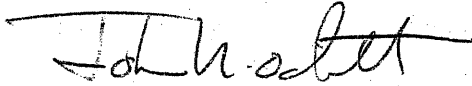
Mr. Richard Chase

- 6 -

March 5, 2004

If you have any questions, please contact Ms. Carol Tamaki at (858) 467 – 2982.

Sincerely,

A handwritten signature in black ink, appearing to read "John R. Odermatt". The signature is fluid and cursive, with a horizontal line extending from the end.

JOHN R. ODERMATT, Senior Engineering Geologist  
Land Discharge Unit

cc: Interested parties list (Attached)